IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image forming apparatus, comprising:

a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam; and

a clock frequency adjusting unit that, counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam, selects a count of the number of clocks for one laser beam as a reference value, and adjusts a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 2 (Original): The image forming apparatus according to claim 1, wherein the first detecting unit is situated at a scanning start position and the second detecting unit is provided at a scanning finish position.

Claim 3 (Currently Amended): ~~The image forming apparatus according to claim 1,~~

~~further comprising~~ An image forming apparatus, comprising:

a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam;

a clock frequency adjusting unit that, counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam, selects a count of the number of clocks for one laser beam as a reference value, and adjusts a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value; and

a plurality of third detecting units, each third detecting unit being situated at a third position along the main scanning direction of a corresponding laser beam, wherein the third detecting unit detects the corresponding laser beam, wherein

the clock frequency adjusting unit, counts number of clocks of a write clock during a period since any of the first detecting units, the second detecting units, and the third detecting units detects the corresponding laser beam until any of an adjoining first detecting unit, second detecting unit, and third detecting unit detects the corresponding laser beam, takes a count of the number of clocks for one laser beam as a reference value, and adjusts a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value.

Claim 4 (Currently Amended): ~~The image forming apparatus according to claim 1, wherein~~ An image forming apparatus, comprising:

a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam;

a clock frequency adjusting unit that, counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam, selects a count of the number of clocks for one laser beam as a reference value, and adjusts a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value, wherein

the clock frequency adjusting unit includes a phase-locked loop with variable filters and that multiplies a reference clock by a multiple N, and the clock frequency adjusting unit varies the number of filters in the phase-locked loop and the multiple N to adjust the write clock frequency.

Claim 5 (Original): The image forming apparatus according to claim 1, wherein when selecting the reference value, the clock frequency adjusting unit selects a count of number of clocks for a laser beam as the reference value so that an amount of adjustment of the write

clock frequency of the laser beams becomes minimum mutually.

Claim 6 (Original): The image forming apparatus according to claim 1, wherein the second detecting unit is a linear charge-coupled device.

Claim 7 (Currently Amended): The image forming apparatus according to claim 1, wherein the clock frequency adjusting unit performs the adjustment of the write clock frequency when the image forming apparatus is turned on ~~booted~~.

Claim 8 (Original): The image forming apparatus according to claim 1, further comprising a temperature detector that detects an ambient temperature, and a determining unit that detects whether a change in predetermined time of the ambient temperature detected by the temperature detector is higher than a predetermined value, wherein

the clock frequency adjusting unit performs the adjustment of the write clock frequency upon the determining unit detecting that the change of the ambient temperature being higher than the predetermined value.

Claim 9 (Original): The image forming apparatus according to claim 1, wherein the period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam is calculated an average of periods since each of the first detecting units detects the corresponding laser beam until each of the second detecting unit detects the corresponding laser beam.

Claim 10 (Canceled)

Claim 11 (Currently Amended): The image forming apparatus according to claim 1, further comprising:

an intermediate transfer body of which surface moves endlessly; and

a plurality of image forming units disposed opposite to the moving surface of the intermediate transfer body, wherein

the image forming unit includes

an image carrier that carries an electrostatic latent image;

a writing unit that writes the electrostatic latent image on the image carrier; and

a plurality of developing units each of which develops the electrostatic latent image on the image carrier~~; and~~

~~a switching unit that selects and drives one of the developing units~~.

Claim 12 (Currently Amended): A method of correcting timing for generating laser beams in an image forming apparatus, the image forming apparatus having a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier, the method comprising:

detecting the laser beams at least at a first position and a second position, wherein the first position and the second position being on the main scanning direction of each laser beam;

counting number of clocks of a write clock during a period since the laser beam is detected at a desired one of the first position until the laser beam is detected at a desired one of the second position;

selecting a count of the number of clocks for one laser beam, out of the counts of the number of clocks for the laser beams, as a reference value; ~~and~~

adjusting a write clock frequency of each of the laser beams other than the one laser beam so as to coincide with the reference value; and

setting a condition of image forming process after the adjusting of the write clock frequency.

Claim 13 (New): An image forming apparatus, comprising:

a plurality of optical systems configured to form an image of a specific color on each of a plurality of image carriers using laser beams;

a plurality of first detecting units and a plurality of second detecting units configured to detect the laser beams; and

a clock frequency adjusting unit configured to counts a number of clocks of a write clock and adjusts a write clock frequency based on detections performed by the plurality of first detecting units and the plurality of second detecting units, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 14 (New): An image forming apparatus, comprising

a clock frequency adjusting unit configured to counts a number of clocks of a write clock and adjusts a write clock frequency based on laser beam detections performed by detecting units, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 15 (New): The image forming apparatus according to claim 14, wherein the clock frequency adjusting unit includes a phase-locked loop with variable filters.

Claim 16 (New): The image forming apparatus according to claim 15, wherein the phase-locked loop multiplies a reference clock by a multiple N.

Claim 17 (New): The image forming apparatus according to claim 16, wherein the clock frequency adjusting unit varies the number of filters in the phase-locked loop and the multiple N to adjust the write clock frequency.

Claim 18 (New): An image forming apparatus, comprising:

a plurality of optical systems configured to form an image of a specific color on each of a plurality of image carriers using laser beams;

a plurality of first detecting units, a plurality of second detecting units, and a plurality of third detecting units configured to detect the laser beams; and

a clock frequency adjusting unit configured to counts a number of clocks of a write clock and adjusts a write clock frequency based on detections performed by the plurality of first detecting units, the plurality of second detecting units, and the plurality of third detecting units, wherein

the clock frequency adjusting unit counts a number of clocks of a write clock and adjusts a write clock frequency.

Claim 19 (New): An image forming apparatus, comprising:

a plurality of optical systems configured to form an image of a specific color on each of a plurality of image carriers using laser beams;

a plurality of first detecting units and a plurality of second detecting units configured to detect the laser beams; and

a clock frequency adjusting unit configured to counts a number of clocks of a write clock and adjusts a write clock frequency based on detections performed by the plurality of first detecting units and the plurality of second detecting units, wherein

the clock frequency adjusting unit includes a phase-locked loop with variable filters.

Claim 20 (New): The image forming apparatus according to claim 19, wherein:

the phase-locked loop multiplies a reference clock by a multiple N.

Claim 21 (New): The image forming apparatus according to claim 20, wherein:

the clock frequency adjusting unit varies the number of filters in the phase-locked loop and the multiple N to adjust the write clock frequency.

Claim 22 (New): An image forming method, comprising:

scanning, using a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

detecting, using a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam; and

adjusting, using a clock frequency adjusting unit that counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the

corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam and selects a count of the number of clocks for one laser beam as a reference value, a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 23 (New): An image forming method, comprising:

scanning, using a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

detecting, using a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam;

adjusting, using a clock frequency adjusting unit that counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam and selects a count of the number of clocks for one laser beam as a reference value, a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value; and

detecting, using a plurality of third detecting units, each third detecting unit being situated at a third position along the main scanning direction of a corresponding laser beam, wherein the third detecting unit detects the corresponding laser beam, wherein

the clock frequency adjusting unit, counts number of clocks of a write clock during a period since any of the first detecting units, the second detecting units, and the third detecting units detects the corresponding laser beam until any of an adjoining first detecting unit, second detecting unit, and third detecting unit detects the corresponding laser beam, takes a count of the number of clocks for one laser beam as a reference value, and adjusts a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value.

Claim 24 (New): An image forming method, comprising:

scanning, using a plurality of optical systems and a plurality of image carriers, each optical system scanning a surface of a corresponding image carrier with a laser beam in a main scanning direction to form an image of a specific color on the image carrier;

detecting, using a plurality of first detecting units and a plurality of second detecting units, each first detecting unit being situated at a first position along the main scanning direction of a corresponding laser beam and each second detecting unit situated at a second position along the main scanning direction of the corresponding laser beam, wherein the first detecting unit and the second detecting unit detect the corresponding laser beam;

adjusting, using a clock frequency adjusting unit that counts number of clocks of a write clock during a period since a desired one of the first detecting units detects the corresponding laser beam until a desired one of the second detecting unit detects the corresponding laser beam and selects a count of the number of clocks for one laser beam as a reference value, a write clock frequency of each of the laser beams other than the one lased beam so as to coincide with the reference value, wherein

the clock frequency adjusting unit includes a phase-locked loop with variable filters and that multiplies a reference clock by a multiple N, and the clock frequency adjusting unit

varies the number of filters in the phase-locked loop and the multiple N to adjust the write clock frequency.

Claim 25 (New): An image forming method, comprising:

forming, using a plurality of optical systems, an image of a specific color on each of a plurality of image carriers using laser beams;

detecting, using a plurality of first detecting units and a plurality of second detecting units, the laser beams; and

adjusting, using a clock frequency adjusting unit configured to counts a number of clocks of a write clock, a write clock frequency based on detections performed by the plurality of first detecting units and the plurality of second detecting units, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 26 (New): An image forming method, comprising

adjusting, using a clock frequency adjusting unit configured to counts a number of clocks of a write clock, a write clock frequency based on laser beam detections performed by detecting units, wherein

a condition of image forming process is set after the clock frequency adjusting unit performs the adjustment of the write clock frequency.

Claim 27 (New): An image forming method, comprising:

Forming, using a plurality of optical systems, an image of a specific color on each of a plurality of image carriers using laser beams;

Detecting, using a plurality of first detecting units, a plurality of second detecting

units, and a plurality of third detecting units, the laser beams; and

adjusting, using a clock frequency adjusting unit configured to counts a number of clocks of a write clock, a write clock frequency based on detections performed by the plurality of first detecting units, the plurality of second detecting units, and the plurality of third detecting units, wherein

the clock frequency adjusting unit counts a number of clocks of a write clock and adjusts a write clock frequency.

Claim 28 (New): An image forming method, comprising:

forming, using a plurality of optical systems, an image of a specific color on each of a plurality of image carriers using laser beams;

detecting, using a plurality of first detecting units and a plurality of second detecting units, the laser beams; and

adjusting, using a clock frequency adjusting unit configured to counts a number of clocks of a write clock, a write clock frequency based on detections performed by the plurality of first detecting units and the plurality of second detecting units, wherein

the clock frequency adjusting unit includes a phase-locked loop with variable filters.